

July 28, 1997

Ms. Liza I. Montalvo
Remedial Project Manager
Kentucky/Tennessee Section
U. S. EPA
Region IV
61 Forsyth Street
Atlanta, GA 30303

Re: Results of Air Quality Monitoring - FY97 Third Quarter (FY97-3Q), (Event No. 18) Lees' Lane Superfund Site, Jefferson County, Kentucky Administrative Order on Consent, U. S. EPA Docket No. 91-32-C

Dear Ms. Montalvo:

In accordance with paragraph 11, under, <u>Reporting Requirement</u>, of the subject Consent Order and Attachment I, Operation and Maintenance Plan for Post-Removal Site Control at the Lees' Lane Landfill Site, Section 4.2, <u>Air Quality Monitoring</u>, attached for your information and files is one photocopy each of the following items, prepared by Radian Corporation, P. O. Box 13000, Research Triangle Park, North Carolina 27709, and received by MSD on July 10, 1997.

- 1. Radian Corporation letter, dated June 23, 1997, 2 pages.
- 2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1 page.
- 3. Table 1, TO-14 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: 5/14//97, 1 page.
- 4. Table 2, On-Site Meteorological Data, 5/14/97, 1 page.
- 5. Table 3, TO-14 Data Summary for Gas Monitoring Well Samples at Lee's Lane Landfill, Louisville, KY, Sampling Date: 5/14/97, 1 page.

Immediately after receiving the results of Air Quality Monitoring Radian Corporation MSD received a call from Radian Corporation that the report was flawed and they would send a corrected copy so this report was not forwarded on to you at that time. However,



Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street Louisville, Kentucky 40203-1913 502-540-6000

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we still have not received the corrected report from Radian so we are sending in the flawed report. The revised report will be forwarded to EPA upon receipt by MSD.

Please advise if you have any questions concerning these sampling arrangements. If you have any questions concerning the flawed report, please call Mr. Dan Sammons at (502) 540-6720.

Sincerely,

Carl A. Neumayer

Director of Operations

CAN/dc

Lee'sair3q97

cc: Mr. Jeff Pratt, KNREPC,

Division of Waste Management

Mr. Rick Hogan, KNREPC

Division of Waste Management

G. R. Garner, Executive Director

File: WD-2 (Lees' Lane M & M Quarterly)



P.O. Box 13000

Research Triangle Park, NC 2770

(919) 461-1100

FAX (919) 461-1415

Mr. Dan Sammons Chief Chemist Louisville Metropolitan Sewer District 4522 Algonquin Parkway Louisville, KY 40211

Dear Dan:

Enclosed is the summary analytical report for the ambient and gas monitoring well samples collected at the Lee's Lane Landfill site on 14 May 1997.

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary for the ambient sample with the primary analytes required for submission to EPA.

The monitoring sites for this quarterly collection were chosen based on a combination of prevailing on-site meteorology and available sites in the adjacent residential neighborhood per the standard sampling protocol. It was warm for most of the monitoring day with gusty southwest winds. This is the earliest data sampling could be done due to the flooding of the Ohio River throughout the winter months. Meteorological data readings on-site were invalid due to equipment malfunction, therefore the information displayed in Table 2 was obtained from the Louisville airport's National Weather Station. The ambient samples were collected 3-5 feet above ground level. The ambient samples collected were integrated over a 7-8 hour collection period in Summa® canisters.

The methane analysis was performed by GC/FID on a separate analytical system prior to the TO-14 analysis at Radian's Austin Laboratory. The TO-14 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total nonmethane hydrocarbons prior to field deployment. All samples were successfully analyzed for methane and the TO-14 target analytes.

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. The gas monitoring wells were screened with an OVA prior to field sample collection. The laboratory determined methane results for well samples G1R and G2R were high, at 7983 ppmv, 1930 ppmv, respectively. These correlate with the OVA's reading of >1000 ppm. Most of the targeted compounds for these two wells were well above the other tested wells. The higher methane values may be a result of the high water table levels from the spring flooding.



Mr. Dan Sammons June 23, 1997 Page 2

With the exception of the primary target analytes, very few TO-14 compounds were detected in either the ambient or gas well samples. Benzene, toluene, xylene, and methylene chloride were detected in all 12 field samples. The sample taken at 4423 Wilshire (R1) showed an elevated level of methylene chloride concentration of 7.62 ppbv. All other ambient and well samples were at normal levels for methylene chloride and target compounds for the program.

Radian appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,

Robert F. Jongleaux Project Manager

RFJ/jeh/Task 19

Attachments

c: M. McCoy, Radian/RTP Project File/Task 19

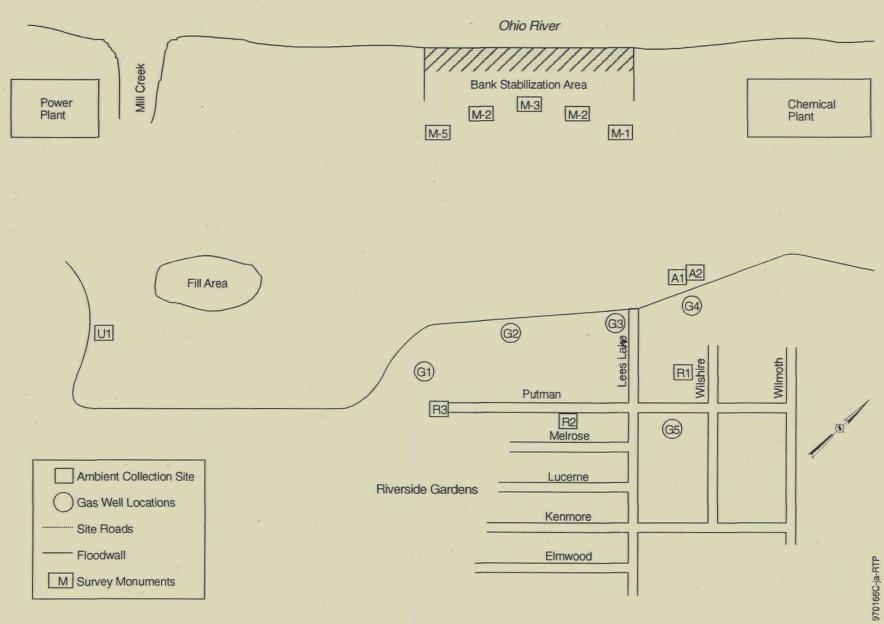


Figure 1. Lees Lane Landfill Sampling Locations

TABLE 1

TO-14 DATA SUMMARY FOR AMBIENT AIR SAMPLES AT THE LEE'S LANE LANDFILL LOUISVILLE, KENTUCKY

SAMPLING DATE: 14 MAY 1997

	Ambient Air Samples							
Sample ID	U1	A1	A2	R1	R2	R3		
Canister ID	A193103	A193100	A193105	A193107	A193110	A193221		
Dilution Factor	0.3201	0.2633	0.2821	0.3658	0.3257	0.3254		
Location	Upwind	On-site	On-site (dup)	Residential	Residential	Residential		
Veriflow ID	A133242	A134091	A134133	A134135	A133240	A134131		
Compound (ppbV)								
Benzene	0.43	0.30	0.30	0.40	0.34	0.71		
Methylene chloride	1.00	3.56	1.71	7.62	1.52	1.18		
Toluene	0.95	0.77	1.01	1.84	0.48	1.82		
Vinyl chloride	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Xylene (Total)	0.30	0.34	0.34	0.45	0.25	1.37		
Methane (ppmV)	4.48	5.09	4.85	4.24	4.15	4.31		

TABLE 2

LOCAL METEOROLOGICAL DATA
14-May-97

	Barometric			Wind	Wind	
Time	Pressure	Temperature	Dewpoint	Direction	Speed	
(Local)	(inches Hg)	(F)	(F)	(from)	(knots)	Observation
0800	29.71	61	55	SW	10	Cloudy
0900	29.71	63	55	SW	14	Cloudy
1000	29.71	66	58	SW	7	Partly Sunny
1100	29.69	70	56	W	12	Partly Sunny
1200	29.67	73	50	SW	22	Partly Sunny
1300	29.67	75	49	W	22	Partly Sunny
1400	29.67	74	47	SW	21	Mostly Sunny
1500	29.68	73	43	W	20	Mostly Cloudy
1600	29.71	70	44	W	18	Mostly Cloudy
1700	29.74	67	43	NW	16	Partly Cloudy

Source: National Weather Service, Louisville Ky.

TABLE 3

TO-14 DATA SUMMARY FOR GAS MONITORING WELL SAMPLES AT THE LEE'S LANE LANDFILL LOUISVILLE, KENTUCKY

SAMPLING DATE: 14 MAY 1997

	Well Samples							
Sample ID	G1	G2	G3	G4	G5-L	G5-R	BLANK *	
Canister ID	A193111	A193112	A193106	A193099	A193108	A193104	A193109	
Dilution Factor	0.3942	0.4015	0.4003	0.3436	0.3328	0.3020	0.0065	
Orifice	D-104	D-3	B-1	D-8	D-9	D-33	N/A	
Compound (ppbV)								
Benzene	2.43	0.45	0.27	0.10	0.14	0.11	<0.01	
Methylene chloride	7.80	0.31	0.43	0.66	1.49	0.52	42	
Toluene	2.91	1.40	0.88	0.59	0.81	0.59	4.56	
Vinyl chloride	5.04	4.49	<0.01	<0.01	<0.01	<0.01	<0.01	
Xylene (Total)	6.20	0.83	0.33	0.21	0.22	0.24	2.90	
Methane (ppmV)	7983	1930	4.21	3.56	2.53	2.74	<0.01	

^{*} Blank values are suspect due to 0.25 psig difference between initial and final vacuums.